



Attainment Band	<p align="center">Cells & Organ Systems Knowledge and Understanding</p>
<p align="center">Yellow/Yellow +</p>	<ul style="list-style-type: none"> ● Describe the functions of the nucleus, cell membrane, mitochondria, cytoplasm, cell wall, vacuole and chloroplast. ● Use models to explain the function of specialised cells and how their structure enables them to do their job. ● Explain how different structures help organisms to survive. ● Describe some benefits and disadvantages of multicellular organisms compared to single-celled organisms. ● Calculate changes in pressure and explain how these changes bring about breathing. ● Interpret and evaluate data from a lung–volume investigation. ● Organise group discussion and communicate effectively to evaluate the human gas exchange system. ● Explain the factors that affect diffusion. ● Demonstrate an understanding of role of diffusion in gas exchange in the lungs. ● Explain how the understanding of the effects of smoking has developed over time. ● Explain how the understanding of the effects of smoking has developed over time. ● Critically evaluate diets with regard to health. ● Creatively communicate ideas about prevention. ● Evaluate risks involved with food tests. ● Suggest how to meet energy requirements healthily using numerical data. ● Interpret data about deaths from starvation and obesity. ● Interpret the results of chewing starch and suggest improvements to a demonstration to show that chemical digestion occurs in the mouth. ● Apply the structure and function of the digestive system organs to creative writing. ● Analyse a model of the digestive system used in an enzyme investigation. ● Analyse data related to the disturbance of the natural flora.
<p align="center">Blue</p>	<ul style="list-style-type: none"> ● Compare and contrast the similarities and differences between plant cells and animal cells, <i>and use a microscope independently to make observations.</i> ● Describe the structure of specialised cells. ● Describe the functions of specialised parts of different unicellular organisms. ● Explain the terms cell, tissue, organ and organ system, and the function of main organ systems in the body. ● Evaluate a model of the breathing system. ● Plan a simple lung–volume investigation considering variables. ● Explain how the alveoli and blood capillaries are adapted to function. ● Identify key variables to control, measure and change to investigate factors affecting diffusion. ● Explain observations in terms of the diffusion of particles. ● Explain the physical effects of exercise, asthma and smoking. ● Explain the physical effects of smoking. ● Explain the function of each of the components of a healthy diet. ● Describe and explain several deficiency diseases and suggest foods that could prevent them. ● Predict results from food tests with a range of foods. ● Compare and explain the energy requirements of different people. ● Explain some of the physical effects of obesity and starvation respectively. ● Describe precisely what is meant by physical and chemical digestion and explain the results of chewing starch. ● Explain how the structure of each digestive system organ relates to its function. ● Explain the results of an enzyme investigation. ● Explain how the natural flora may be disturbed.



Green	<ul style="list-style-type: none"> ● Label an animal cell and a plant cell. ● Identify different specialised animal and plant cells. ● Describe unicellular organisms – including yeast, bacteria, euglena, a paramecium and an amoeba – as being either prokaryotes or eukaryotes. ● Recognise the hierarchy of cell, tissue, organ and organ system; name some common tissues, organs and organ systems in humans. ● Describe the movement of the ribs and the diaphragm during breathing. ● Describe simple ways of measuring lung volume. ● Describe some of the features of the human gas exchange system. ● Recognise that diffusion is the process by which materials move in and out of cells. ● Define diffusion, giving examples. ● Identify some of the physical effects of exercise, asthma and smoking. ● Identify some of the physical effects of smoking. ● Identify various components of a healthy diet. ● Describe the cause of some deficiency diseases. ● Recall tests for some food groups. ● Describe how we use energy. ● Describe some of the physical effects of obesity and starvation. ● Describe in simple terms what is meant by physical and chemical digestion. ● Describe the roles of some of the organs of the digestive system. ● Describe the roles of some of the digestive enzymes. ● Describe some roles of bacteria in digestion.
White	<ul style="list-style-type: none"> ● Some of the above elements have been achieved.